

**REMARKS**

Claims 1-8 are currently pending in the application. By this amendment, claim 1 is amended, claims 3-8 are canceled and claims 9-14 are added for the Examiner's consideration. The foregoing separate sheets marked as "Listing of Claims" show all the claims in the application, with an indication of the current status of each.

The Examiner had required restriction between Group I, claims 1-2, drawn to a method and system for making prioritized recommendation of items to a user based on preferences, and Group II, claims 3-8, drawn to a method and system for collecting statistical data and pre-computing model parameters from the statistical data. The Examiner, in his office action mailed 04/27/2004, indicated that applicant could overcome the restriction requirement by canceling claims 1-8, thereby leaving new claims 9-14 pending. In a telephone discussion on May 13, 2004, the Examiner indicated that he understood where the applicant was coming from, and while he disagreed with applicant's position the Examiner was prepared to go forward with an examination of claims 9-14. Therefore, upon reflection, in order to preserve its position, kindly acknowledged by the Examiner even though the Examiner's disagreement therewith is maintained, the applicant cancels claims 3-8, leaving claims 9-14 for prosecution. Furthermore, additional argument is made supporting the applicant's traverse of the restriction requirement, and an amendment is proposed to claim 1 in support thereof.

It will be observed that the new independent claim 9 added by the present revised preliminary amendment is very similar to now canceled claim 3 but adds additional language to clarify that the precomputed model parameters concern the two preferences (as further detailed in new claim 11). New dependent claims 10-14 are patterned after now canceled claims 4-8. It is believed that new claim 9 and its

dependent claims 10-14 are in proper form for examination, and such examination is requested.

Independent claims 1 and 9 (newly added) each have three elements, as follows:

	Claim 1	Claim 9
Preamble	A method for making prioritized recommendations to a customer in the process of filling a market basket for purchase on an Internet commerce site, the method comprising the steps of:	
Element 1	generating a matrix of training data;	collecting statistics on preferences for associative and renewal buying from training data;
Element 2	<u>considering determining</u> preferences based on associative and renewal buying history from the training data; and	precomputing model parameters from the collected statistics; and
Element 3	making a prioritized recommendation of items so as to maximize the likelihood that the customer will add to the market basket those items with higher priorities.	recommending ordering for a given partial market basket based on the precomputed model parameters.

As will be seen from the above table, the preambles are identical. The first claim element refers to the training data used later for establishing preference weights. The

second claim element uses the training data to establish preferences (claim 1) or model parameters (claim 9) for items not in the basket. Both claims reference the preferences for associative and renewal buying, in the second claim element of claim 1 and in the first claim element in claim 9. And the third element provides for priority ordering of items based on the preferences/model parameters. It should be noted that the third element of both claims 1 and 9 provides for recommendations according to a priority (claim 1) or ordering (claim 9). It is respectfully observed that the Examiner's recitation of the invention in Group II omits mention of this aspect of the invention. Similarly, both claims 1 and 9 describe training data. The training data is not abstract training data, but rather is directed in both claims 1 and 9 to preferences for associative and renewal buying. In claim 1 this aspect of the invention is expressed in terms of "generating a matrix of training data" whereas in claim 9 it is expressed in terms of "collecting statistics ... from training data." It is respectfully observed that the Examiner's recitation of the inventions in both Group I and Group II omits mention of the training data that is collected as statistics in claim 9 and organized in the form of a matrix in claim 1.

It will also be observed, by those skilled in the art – particularly the art of mathematics – that a matrix organization of training data provides an operative structure for determining preferences (claim 1, and amended), comparably to computing model parameters from statistics taken from the training data (claim 9). Thus it may be observed that the training data matrix aspect of the invention claimed in claim 1 is omitted from the Group I recitation of the invention, while the Group II recitation of the invention is limited to the comparable computational equivalent expressed in terms of collecting statistics and computing model parameters. The net effect is to divide a single invention into two pieces, where both pieces are claimed – albeit in different ways – in both claim 1 and claim 9.

Contrary to the Examiner's argument, which is acknowledged with respect, it does not appear that claims 1 and 9 (formerly, claim 3, now canceled) are in the relation of combination / subcombination. It should be clear from the foregoing table and discussion that claims 1 and 9 describe the same invention. Claims 1 and 9 are structured differently, but it is appropriate for the applicant to lay claim to the invention in a plurality of formulations and combinations. The differences in structure do not obscure the commonality of subject matter, as is argued in detail above. It is therefore submitted that the restriction requirement is improper.

In the claims as originally presented, claim 3 did not expressly mention "preferences for associative and renewal buying." However, these two parameters (associative buying and renewal buying) are made explicit in detail in claim 5 (now claim 11) depending from claim 3. Therefore, it is submitted that the applicant has responded in good faith to the restriction requirement by the amendment to claim 3 (now incorporated into claim 9) that added explicit reference to these two parameters. It is believed that this generic reference in the independent claim retains for the independent claim a broad coverage for the invention relative to the more specific implementation in the dependent claim.

Similarly, it will be observed in the foregoing argument that the term "determining preferences" was used in describing how the "matrix of training data" in claim 1 was used comparably to the element "precomputing model parameters from the collected statistics" in claim 9. It is clear that the invention is drawn to an automated implementation, and therefore "determining preferences" is more descriptive than "considering preferences." Consequently, this amendment amends claim 1 to replace "considering preferences" with "determining preferences." It is submitted that this amendment is also a good faith effort to respond to the Examiner's restriction requirement, and may assist the Examiner in reconsidering the restriction requirement, and in particular reconsider in light of the above described division of

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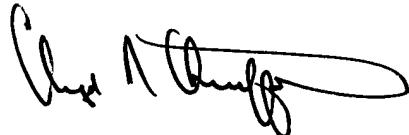
13

the same invention into two pieces, even though both pieces are claimed in each independent claim.

With these clarifications being provided in claim 1 and new claim 9, it is submitted that there remain no grounds for sustaining the restriction requirement, and it is respectfully requested that the restriction requirement be lifted and that the examination proceed with claims 1-2 and 9-14. Alternatively, if the Examiner continues to require an election, the traverse of the restriction requirement is maintained and claims 9-14 are elected.

Please charge any deficiencies in fees and credit any overpayment of fees to Deposit Account 50-0510 (IBM-Yorktown).

Respectfully submitted,



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